

IN THE CLAIMS:

1.-18. (Canceled)

19. (Currently amended) A multiple electrode, fault-tolerant medical electrical lead adapted for deployment into a portion of a coronary sinus, a great vein, or branches of the great vein, comprising:

an elongated electrified biocompatible lead member;

at least three spaced-apart electrodes coupled to a distal portion of the lead member and in electrical communication with a means for addressing each of said at least three spaced-apart electrodes; and

a means for manually guiding said distal portion of the lead member into a portion of a coronary sinus, a great vein, or branches of the great vein so that each of said at least three spaced-apart electrodes are disposed in intimate electrical communication with a different discrete volume of cardiac tissue, wherein said distal portion comprises a bifurcated lead portion and wherein at least one of the at least three electrodes mechanically and electrically couples to the bifurcated lead portion; wherein at least one of the at least three electrodes comprises a tip electrode having a first axial bore formed through a portion of said tip electrode; and wherein the means for manually guiding said distal portion of the lead member comprises:

a guide wire slidably engaging said axial bore

a second tip electrode having a second axial bore formed through a portion of said tip electrode; and wherein the means for manually guiding said distal portion of the lead member comprises a second guide wire slidably engaging said second axial bore;

a pair of guidewire lumens, each one of said pair of guidewire lumens formed in a lateral side portion of the bifurcated distal portion and wherein said first axial bore and said second axial bore are disposed spaced from an axial center of the first tip electrode and

~~the second tip electrode, respectively, and generally in alignment with said pair of guidewire lumens; and~~

~~further comprising a bi-lumen delivery catheter adapted to slidingly receive the bifurcated distal portion and wherein said first guidewire and said second guidewire are not encased within said bi-lumen delivery catheter,~~

~~wherein said distal portion comprises a bifurcated lead portion and wherein at least one of the at least three electrodes mechanically and electrically couple to the bifurcated lead portion;~~

~~wherein the means for manually guiding said distal portion of the lead member comprises a second guide wire slidingly engaging said second axial bore~~

~~and further comprising a pair of guidewire lumens, each one of said pair of guidewire lumens formed in a lateral side portion of the bifurcated distal portion and wherein said first axial bore and said second axial bore are disposed spaced from an axial center of the first tip electrode and the second tip electrode, respectively, and generally in alignment with said pair of guidewire lumens.~~

20. (Original) A medical lead according to claim 19, further comprising a resilient co-axial coil-type conductor disposed within a proximal portion of the medical lead, said co-axial coil-type conductor diverging into two independent coil-type conductors and wherein each of said two independent coil-type conductors are disposed in a separate one of the bifurcated portion of the medical lead.

21.-27 (Canceled)

28. (Currently amended) A reconfigurable multiple electrode lead system, comprising:

- an elongated medical electrical lead and delivery system that delivers at least three individually addressable electrodes into more than one cardiac vein site along the epicardial surface of the ventricular wall, wherein each of said at least three individually addressable electrodes are configured to electrically couple to a one of at least three discrete segments of the LV cardiac tissue, and wherein said at least three discrete segments of LV cardiac tissue comprises: an apical portion, a mid-basal segment and an apical segment, along either an anterior, posterior or lateral plane; and

- an implantable pulse generator operatively coupled to a proximal portion of said elongated medical electrical lead, said implantable pulse generator further comprising:

- means for sensing cardiac events,

- means for measuring intrathoracic impedance by injecting direct current signals using a one of the at least three individually addressable electrodes and calculating a resulting impedance value,

- means for delivering diverse electrical therapies, and

- means for optimizing cardiac pacing intervals by individually addressing at least a pair of said at least three individually addressable electrodes, and, as applicable, applying programmably-timed pacing-level electrical stimulation,

wherein said switching means further comprises means for altering connections among said implantable pulse generator and said one or more of said at least three individually addressable electrodes to eliminate or reduce said inappropriate signal, and wherein said switching means comprises a modulator/demodulator units and further comprises: means for resuming stimulation and contraction of the cardiac tissue at the alternate segment via the individually addressable electrodes.